Index of Claims

| Application/Co | ntro | ol No. |
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10/817,435

Examiner

James C. Dooley

Applicant(s)/Patent under Reexamination

JOHANSEN, ERLING W.

Art Unit

3634

Rejected **Allowed** 

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| _ | Interference |

| A | Appeal   |
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|       | 1<br>2<br>3<br>4<br>5<br>6       |              |                |              |                |          |             |              |  |                 |
|       | 3                                |              |                |              |                |          |             |              |  |                 |
|       | 4                                |              |                |              |                |          |             |              |  |                 |
|       | 5                                |              |                |              |                |          |             |              |  |                 |
|       | 6                                |              |                |              |                |          |             |              |  |                 |
|       | 7                                | $\perp$      |                |              |                | 乚        |             |              |  | $\Box$          |
|       | 8<br>9                           | $\coprod$    |                |              |                | <u> </u> |             |              |  | $\sqcup$        |
|       | 9                                | L            |                | L            | L              | _        |             |              | Ш  |                 |
|       | 10                               | $\perp$      | L              | L            |                |          |             |              |  |                 |
|       | 10<br>11                         |              | <u> </u>       | <u></u>      | <u> </u>       | <u> </u> | Щ           |              | Ш  |                 |
|       | 12                               | <b>I</b>     | ļ              | _            | lacksquare     | <u> </u> | Ш           | L            |  | _               |
|       | 13                               | <u>L</u>     | <u> </u>       |              | ļ              | L_       | Ш           |              | Ш  |                 |
|       | 14                               | 1            | _              | L.           | <u> </u>       | <u> </u> | Щ           |              | Ш  |                 |
|       | 15                               | 1            | _              | <u> </u>     | <u> </u>       | <u> </u> | _           |              |  | $\Box$          |
|       | 12<br>13<br>14<br>15<br>16<br>17 | 1            | <u> </u>       | L            | <u> </u>       | <u> </u> |             | _            | Ш  |                 |
|       | 17                               | Ш            |                | <u> </u>     | <u> </u>       | L        |             |              |  | _               |
|       | 18                               | 1            | L,             | 1            | <u> </u>       | _        |             |              | Ш  | $\dashv$        |
|       | 19                               | L,           | $\swarrow$     | _            | _              |          | _           |              |  | Ш               |
|       | 20                               | Y            | _              | <u> </u>     | <u> </u>       | _        | _           |              |  |                 |
|       | 21                               | L_           | L.             | ╙            | _              | _        | _           |              |  | _               |
|       | 18<br>19<br>20<br>21<br>22<br>23 |              | _              | ┡            | <u> </u>       | _        | ╙           | _            |  |                 |
|       | 23                               |              | L              | ┡            | <u> </u>       | _        | <u> </u>    | _            | Ш  |                 |
|       | 24<br>25                         | <u> </u>     | _              | _            | ⊢              | <u> </u> | <u> </u>    | <u> </u>     |  | 니               |
|       | 25                               |              | _              | <u> </u>     | <u> -</u>      | <u> </u> | <u> </u>    | _            |  | Ш               |
|       | 26                               |              | _              | <u> </u>     | <del> </del> _ | _        | ┡           | <u> </u>     | _  | -               |
|       | 27<br>28                         | _            | -              | ↓_           | ╄              | <u> </u> | -           | <u> </u>     | _  | Н               |
|       | 28                               | ┞            |                | 1            | ļ              | ├        |             | _            | Ъ-   |                 |
|       | 29                               | <u> </u>     | ⊢              | 1_           | ├              | ├        | $\vdash$    | _            | $\vdash$   | $\vdash$        |
|       | 30                               | ⊢            | -              | $\vdash$     | -              | -        | $\vdash$    | ⊢            | -  | $\vdash$        |
|       | 31                               | -            | -              | Ͱ            | ╀              | ├        | ├-          |              | -  | $\vdash \vdash$ |
|       | 32<br>33                         | -            | <del> </del> — | 1            | -              | -        | ├           | -            | <u> </u>   | $\vdash \vdash$ |
|       | 33                               | <del> </del> | ┼              | $\vdash$     | $\vdash$       | ├        | ├           | ⊢            | $\vdash$   | $\vdash\dashv$  |
|       | 34                               | ⊢            | <del> </del> — | <del> </del> | $\vdash$       | $\vdash$ | ⊢           | -            | <del> </del>                                     | $\dashv$        |
|       | 35<br>36<br>37                   | ⊢            | -              | $\vdash$     | $\vdash$       |          | -           | -            | $\vdash$   | $\vdash$        |
|       | 30                               | ⊢            | -              | $\vdash$     | +              | -        | ┼─          | $\vdash$     | $\vdash$   | ┝┈┤             |
|       | 3/                               | $\vdash$     | 1              | ╁            | ┼-             | ┼        | ⊢           | ⊢            | ├-   | Н               |
|       | 38<br>39                         | ⊢            | ┢              | -            | +              | $\vdash$ | $\vdash$    | -            | -  | $\vdash$        |
|       |                                  | $\vdash$     | $\vdash$       | ┼            | +              | $\vdash$ | ╁           | -            | <del>                                     </del> | H               |
|       | 40                               | ₩            | ╁              | ╁            | +-             | ╂        | +           | $\vdash$     | -  | $\vdash$        |
|       | 42                               | ╁            | ╫              | +-           | +              | $\vdash$ | $\vdash$    | -            | -  | Н               |
|       | 42                               | $\vdash$     | ╁              | ┼            | +              | ┢        | +           | $\vdash$     | ⊢  | $\vdash$        |
|       | 44                               | ╁            | ┼              | ╁            | +              | ╁╌       | +-          | <del> </del> | <del>                                     </del> | Н               |
|       | 44                               | $\vdash$     | $\vdash$       | +            | +              | +-       | +           | $\vdash$     | $\vdash$   | H               |
|       | 45                               | +-           | +              | ╁            | +              | +-       | $\vdash$    | ╁            | $\vdash$   | $\vdash$        |
| -     | 47                               | ╁-           | +              | +            | +              | +-       | +-          | $\vdash$     | $\vdash$   | -               |
|       | 48                               | +            | +              | ╁            | ╁              | ╁        | $\vdash$    | $\vdash$     | $\vdash$   | $\vdash$        |
|       | 49                               | ╁            | +              | +            | +              | +-       | ╁           | $\vdash$     | ╁  | $\vdash$        |
|       | 50                               | ╁            | +              | +            | ╁╌             | ╁        | +           | $\vdash$     | ╁  | H               |
|       | 1 30                             |              |                |              |                |          | 1           | 1            | 1  |                 |

| laim     |                      |              |  | 0              | Date     | •  |  | _        |              | [ | Cla   | im       |                  |          |  |          | ate          | •  |              |  |  |
|----------|----------------------|--------------|--|----------------|----------|--|--|----------|--------------|---|-------|----------|------------------|----------|--|----------|--------------|--|--------------|--|--|
| Original | 2                    | 1,           | /  | ١.             |          | /  | 2  | <b>'</b> |              |   | Final | Original |                  |          |  |          |              |  |              |  |  |
| 1        | V                    |              |  | _              |          |  |  |          |              | t |       | 51       |                  |          |  |          |              |  |              |  |  |
| 2        | 1                    |              |  |                |          |  |  |          |              | [ |       | 52       |                  |          |  |          |              |  |              |  |  |
| 3        | $\Box$               |              |  |                |          |  |  |          |              |   |       | 53       |                  |          |  |          |              |  |              |  |  |
| 4        |                      |              |  |                |          |  |  |          |              |   |       | 54       |                  |          |  |          |              |  |              |  |  |
| 5        | $\Box$               |              |  |                |          |  |  |          |              |   |       | 55       |                  |          |  |          |              |  |              |  |  |
| 6        | $\prod$              |              |  |                |          |  |  |          |              |   |       | 56       |                  |          |  |          | L            |  |              |  |  |
| 7        | $\perp I$            |              |  |                |          |  |  |          |              |   |       | 57       |                  |          |  |          |              |  |              |  |  |
| 8        | $\perp \!\!\! \perp$ | $oxed{oxed}$ |  |                |          |  |  |          | Ш            |   |       | 58       |                  |          |  |          |              |  |              |  |  |
| 9        | $\perp \!\!\! \perp$ | 乚            |  |                | L        |  |  |          |              |   |       | 59       |                  | _        |  |          |              | _  |              |  |  |
| 10       | $\perp \!\!\! \perp$ | L            |  |                |          |  |  |          |              |   |       | 60       |                  |          |  |          |              | L.   | <u> </u>     |  |  |
| 11       |                      | L            |  |                |          |  |  |          |              |   |       | 61       |                  |          |  |          |              | _  |              |  |  |
| 12       | #                    | ļ            |  |                |          |  | Ш  |          |              |   |       | 62       |                  |          |  |          | L            |  |              |  |  |
| 13       | 4                    | $oxed{oxed}$ |  |                | L_       |  |  |          | L            |   |       | 63       |                  |          |  |          | _            | _  | <u> </u>     | <u> </u>   | _  |
| 14       | 1                    | $\perp$      |  | <u> </u>       | <u> </u> | Ш.   |  | Щ        | Ш            |   |       | 64       |                  |          |  |          | <u> </u>     | <u> </u>   | <b> </b>     |  |  |
| 15       | #                    | _            |  |                | <u> </u> |  | _  |          | <u> </u>     |   |       | 65       | Ш                |          |  |          | <u> </u>     |  | <u> </u>     | <u> </u>   |  |
| 16       | 11                   |              | $\vdash$   | <u> </u>       | <b> </b> |  | _  | _        | ļ            |   |       | 66       | $\vdash \vdash$  | _        |  | -        | <u> </u>     | $\vdash$   | <u> </u>     | <del> </del>                                     | Ь.   |
| 17       | #                    |              | $ldsymbol{ldsymbol{ldsymbol{eta}}}$              | <b> </b> _     | <u> </u> | ļ  |  | L        | $\vdash$     |   |       | 67       | $\vdash$         | _        |  | _        | <del> </del> |  |              | <u> </u>   | H  |
| 18       | #                    | L            | 1  | _              | _        | _  |  | _        | _            |   |       | 68       |                  | _        |  |          | -            | <del> </del>                                     | <u> </u>     | <u> </u>   | <u> </u>   |
| 19       |                      | u            |  | <u> </u>       | <u> </u> | <u> </u>   | _  |          | Ш            |   |       | 69       | Ш                |          |  | _        | -            | -  | <u> </u>     | -  | _  |
| 20       | <b>Y</b>             | <u> </u>     | _  | _              | _        | <u> </u>   | -  |          |              |   |       | 70       | Н                |          |  |          | $\vdash$     |  | <u> </u>     |  | -  |
| 21       | -                    | <del> </del> |  | _              | _        | <u> </u>   |  | _        | _            |   |       | 71       | Н                |          | _  |          | _            |  | ⊢            | -  | _  |
| 22       | +                    | _            | _  | <u> </u>       | _        | L  | ┡  | $\vdash$ |              |   |       | 72       | $\vdash$         |          |  | _        |              | -  | ⊢            | ⊢  | ┡  |
| 23       |                      | ⊢            | ┡  | <del>  -</del> |          | <u> </u>   | ┡  | _        |              |   |       | 73       | H                |          | _  | _        | _            | ├—   | <del> </del> | ⊢  | _  |
| 24       | -                    | ⊢            | _  | <u> </u>       | <u> </u> |  | <u> </u>   | <u> </u> | L            |   |       | 74       |                  | _        |  | _        | L            | -  | ├-           | -  | _  |
| 25       |                      | ▙            | _  | -              | <u> </u> | _  | ├  | <u> </u> |              |   |       | 75       | Н                | _        |  | <u> </u> | ┝            | ├-   | ├            | $\vdash$   | H  |
| 26       | +                    | 1            | ⊢  |                | ⊢        | -  | ⊢  | -        | -            |   |       | 76<br>77 | $\vdash$         | _        | -  | ⊢        | ⊢            | ⊢  | $\vdash$     | $\vdash$   | -  |
| 27       | +                    | ₩            | <del>  -</del>                                   | <u> </u>       | ┡        | -  | -  |          | ┝            |   |       | 78       | _                |          | H  | ⊢        | ⊢            | ├  | $\vdash$     |  |  |
| 28       | ╫                    | ╁            | ⊢  |                | ├        |  | ├  | -        |              |   |       | 79       | $\vdash$         |          | -  | ┝        |              | -  | <del> </del> | $\vdash$   | $\vdash$   |
| 29<br>30 | ╁                    | ⊬            | ⊢  | ├              | ├        | ⊢  | $\vdash$   | -        | <u> </u>     |   |       | 80       | $\vdash$         |          | ┝  |          | $\vdash$     | -  | ╁╌           | ⊢  | ├  |
|          |                      | ╀            | -  | <del> </del>   | ├        | ⊢  | ┢  | -        |              |   |       | 81       | H                |          | ┝  |          | $\vdash$     | -  | ├            | ├  | $\vdash$   |
| 31<br>32 | +-                   |              | -  | -              | -        | ├-   |  | $\vdash$ | $\vdash$     |   |       | 82       | $\vdash$         | —        | <del> </del> —                                   | $\vdash$ | -            | $\vdash$   | $\vdash$     | +-   | -  |
| 33       |                      | +            | $\vdash$   | $\vdash$       | $\vdash$ | <del> </del>                                     | -  | -        | $\vdash$     |   |       | 83       | -                | -        | ⊢  | ┝        | $\vdash$     | $\vdash$   | $\vdash$     | $\vdash$   |  |
| 34       |                      | +            | $\vdash$   | $\vdash$       | -        | <del>  -  </del>                                 | $\vdash$   |          | ├            |   |       | 84       | -                |          | ⊢  | $\vdash$ | ┢            | $\vdash$   | 1            | -  | $\vdash$   |
| 35       |                      | $\vdash$     | ╁─   | $\vdash$       | $\vdash$ | 一  | $\vdash$   | $\vdash$ | $\vdash$     |   |       | 85       | $\vdash$         | $\vdash$ |  | $\vdash$ | $\vdash$     | H  | t            | <del>                                     </del> | <del> </del>                                     |
| 36       |                      | ┼            | $\vdash$   | $\vdash$       | $\vdash$ | <del>                                     </del> | <del> </del>                                     | $\vdash$ | $\vdash$     | 1 |       | 86       | Н                | -        | <del> </del>                                     | $\vdash$ | H            | <del>                                     </del> | T            | T  |  |
| 37       |                      | +-           | $\vdash$   | $\vdash$       | 1        | <del> </del>                                     | $\vdash$   | $\vdash$ | <del> </del> | 1 |       | 87       | $\vdash$         | H        | <del> </del>                                     | _        | $\vdash$     | $t^-$  | T            | <del>                                     </del> | 1  |
| 38       | +                    | +            | $\vdash$   | <del> </del>   | +-       | H  | $\vdash$   | 一        | $\vdash$     | 1 |       | 88       | $\vdash$         | $\vdash$ | $\vdash$   | $\vdash$ | 1            | 1-   | 1            |  | t  |
| 39       | ╁╴                   | $\vdash$     | <del>                                     </del> | T              | $t^-$    | Н  | <del>                                     </del> | -        | T            | i |       | 89       | 1                | $\vdash$ | <del>                                     </del> | $\vdash$ | T            | T  | T            | 1  | Г  |
| 40       | +                    | 十            | <del>                                     </del> | $\vdash$       | $t^-$    | T  | 1-   | 1        | T            |   |       | 90       | T                |          | Г  | H        | $t^-$        | $\vdash$   | $t^{-}$      | Т  | <del>                                     </del> |
| 41       | +                    | T            | T  | 1              | $t^-$    | $t^-$  | $I^-$  | $\vdash$ | Т            | 1 |       | 91       | $t^-$            |          | $\vdash$   | Т        | $\vdash$     | 1  | $\vdash$     | T  |  |
| 42       | $\top$               | 1            | Π  | Т              | Т        | T  | 1  | 1        | T            | 1 |       | 92       | <del>  -  </del> | _        | Τ  | Т        | $\vdash$     |  | 1            |  |  |
| 43       |                      | 1            | 1  |                | t        | T  |  | Г        | Т            | 1 |       | 93       |                  | Г        | 1  | Π        | T            | Τ  | Τ            |  |  |
| 44       |                      | 1            |  |                | 1        | П  | Π  | П        |              | 1 |       | 94       | $\Box$           |          | Г  |          | Π            |  |              |  |  |
| 45       |                      | $\top$       |  | Π              | $\top$   | Π  |  | П        | Γ            | 1 |       | 95       | Π                |          | Г  | Π        |              | Γ  |              |  |  |
| 46       |                      | 1            |  | Π              | 1        | П  | Ī  | П        |              | ] |       | 96       |                  |          | П  |          | Π            |  |              | Γ  |  |
| 47       |                      | T            | Π  | Ι              | T        |  |  |          |              | ] |       | 97       |                  |          |  | Γ        | Γ            | Γ  |              | Γ  |  |
| 48       |                      |              | Т  | П              |          |  |  |          | Γ            | ] |       | 98       |                  | Γ        |  | Γ        | Γ            |  |              |  |  |
| 49       |                      |              |  | L              |          |  |  | Γ        |              | ] |       | 99       |                  |          |  |          | Γ            | L  |              |  |  |
| 50       |                      | $\Gamma$     |  |                | $\Gamma$ | $L^-$  |  | $L^-$    | $L^{-}$      |   |       | 100      |                  |          |  |          | $\Gamma$     |  |              |  |  |

| Cla      |                   |  |              |                | Date         | •        |              |          | _  |                 |
|----------|-------------------|--|--------------|----------------|--------------|----------|--------------|----------|--|-----------------|
| Final    | Original          |  |              |                |              |          |              |          |  |                 |
|          | 101<br>102<br>103 |  |              |                |              |          |              |          |  |                 |
|          | 102               | _  |              | _              |              | _        | _            |          | _  | _               |
|          | 103               |  |              |                |              |          |              |          |  | _               |
|          | 104<br>105        | -  | _            | -              |              | _        | _            |          | _  | -               |
|          | 105               |  |              | $\vdash$       |              |          |              |          | -  | -               |
|          | 106               |  |              |                | _            |          | _            |          |  | $\dashv$        |
|          | 107<br>108        |  |              |                |              | H        | -            | -        | -  | $\dashv$        |
|          | 109               | -  |              |                |              | $\vdash$ |              | -        |  | $\dashv$        |
|          | 110               | -  | _            |                | _            | $\vdash$ | -            | -        | -  |                 |
|          | 111               | $\vdash$   | -            |                | _            | _        | $\vdash$     |          |  |                 |
|          | 112               |  |              |                |              |          | $\vdash$     |          |  |                 |
|          | 112<br>113        | -  |              | $\vdash$       |              |          | $\vdash$     | _        | _  | $\dashv$        |
|          | 114               | $\vdash$   |              | <u> </u>       |              | ı        |              |          |  | $\neg$          |
|          | 115               |  |              |                |              |          |              |          |  |                 |
|          | 116               |  |              |                |              |          |              |          |  |                 |
|          | 117<br>118        |  |              |                |              |          |              |          |  |                 |
|          | 118               |  |              | L              | <u> </u>     |          |              |          |  | Ш               |
|          | 119               | _  | _            |                | _            | L_       |              | _        |  | Ш               |
|          | 120               | _  |              | <u> </u>       | ļ            |          |              | _        | _  | Щ               |
| _        | 120<br>121<br>122 | _  | _            | ┞              | _            | <u> </u> |              | <u> </u> | <u> </u>   | Щ               |
|          | 122               | ┡  | <b>.</b>     | <del> </del>   | -            | _        | _            | ⊢        | <u> </u>   | $\vdash$        |
|          | 123<br>124        | ⊢  |              | ⊢              |              | $\vdash$ | $\vdash$     | ⊢        | ├  | Н               |
|          | 124               | ┢  | ⊢            | $\vdash$       | -            | -        |              | $\vdash$ | $\vdash$   | $\vdash$        |
|          | 125<br>126        | $\vdash$   | ┢            |                |              | ┢        | ┢            | ⊢        | <del>                                     </del> | Н               |
|          | 127               | -  |              | $\vdash$       | $\vdash$     | $\vdash$ | $\vdash$     | 一        | 1  | Н               |
|          | 128               | <del>                                     </del> | <del> </del> | ╁              | Т            |          | $\vdash$     | _        | 1  | $\Box$          |
|          | 128<br>129        | t  |              | T              | _            | T        |              |          | Т  |                 |
|          | 130               | Ì  | Г            | <b> </b>       | Γ            | Ī        |              | ı        |  |                 |
|          | 131<br>132        |  |              |                |              |          |              |          |  |                 |
|          | 132               |  |              |                |              |          |              |          |  |                 |
|          | 133               |  |              | _              | L            | <u> </u> | _            |          | <u></u>  |                 |
|          | 134               |  |              |                |              | _        | <u> </u>     | ļ        | <u> </u>   |                 |
|          | 135               | -  | <u> </u>     | _              | ļ            | <u> </u> | <del> </del> | ├_       | -  | Н               |
| <u> </u> | 136               | ₩  | ⊢            | ⊢              | ├-           | ⊢        | <del> </del> | -        | -  | $\vdash$        |
|          | 137<br>138        | -  | ╢            | ₩              | $\vdash$     | ⊢        | $\vdash$     | ╁        | -  | $\vdash \vdash$ |
| -        | 139               |  | ╁╌           | ┼              | $\vdash$     | ╁        | ┼            | -        | <del>  -  </del>                                 | $\vdash$        |
| $\vdash$ | 140               | $\vdash$   | $\vdash$     | 1              | $\vdash$     | $\vdash$ | 1-           | 1        | $\vdash$   | H               |
| <b></b>  | 141               | 1  | <del> </del> |                | t            | T        |              | t        |  |                 |
|          | 142               | 1  | $\vdash$     | Т              | I            | T        | T            | 1        | 1  | $\Box$          |
|          | 143               |  | 1            |                | Γ            |          |              | Г        |  |                 |
|          | 144               |  |              |                |              |          |              |          |  |                 |
|          | 145               |  |              |                |              |          |              |          |  |                 |
|          | 146               |  | L            |                | $oxed{\Box}$ | Ľ        | 匚            | L        | 匚  |                 |
|          | 147               | <u> </u>   | _            | _              | _            | 1        | _            | <u> </u> | 1  | <u> </u>        |
| <u> </u> | 148               | $\vdash$   | <u> </u>     | <del> </del> _ | <del> </del> | ـ        | $\vdash$     | $\vdash$ | 1  | $\vdash$        |
|          | 149               | ╄  | 1            | -              | 1            | -        | $\vdash$     | ـ        | $\vdash$   | $\vdash$        |
| L        | 150               | <u>i</u>   | L.           | <u> </u>       | <u></u>      | _        |              | 1_       | 1  | 1               |
|          |                   |  |              |                |              |          |              |          |  |                 |